

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A probe comprising:
a support; and
an intermediate excitation medium, which is fixed on said support and is excited when external energy is supplied from the outside, and which causes a first molecule in the vicinity thereof having a ~~binding~~ bonding residue to achieve ~~binding~~ bonding with a ~~binding~~ bonding target which is to be ~~[[bound]]~~ bonded to said first molecule.
2. (Currently Amended) The probe according to Claim 1, wherein either both or one of said first molecule and said ~~binding~~ bonding target is fixed to a support member.
3. (Currently Amended) The probe according to Claim 2, wherein said support is positioned with sufficient accuracy with respect to said support member so as to allow said ~~binding~~ bonding.
4. (Original) The probe according to Claim 3, wherein the accuracy is 1 nm or less.
5. (Currently Amended) The probe according to Claim 1, wherein, when said intermediate excitation medium is excited, said intermediate excitation medium generates ~~binding~~ bonding energy which moves from said intermediate excitation medium in an excited state to said first molecule to achieve said ~~binding~~ bonding.
6. (Currently Amended) The probe according to Claim 5, wherein movement of said ~~binding~~ bonding energy from said intermediate excitation medium in said excited state to said first molecule is excited triplet energy transfer.
7. (Currently Amended) The probe according to Claim 1, wherein, when said intermediate excitation medium is excited, said ~~binding~~ bonding is accomplished based on electron

transfer between said intermediate excitation medium in said excited state and said first molecule.

8. (Currently Amended) The probe according to ~~Claim 1~~ Claim 1, wherein said external energy is light, electrons or ions.

9. (Original) The probe according to Claim 8, wherein said intermediate excitation medium is a photosensitized molecule, and said external energy is said light.

10. (Currently Amended) The probe according to Claim 9, wherein said photosensitized molecule comprises a probe branch which forms the end of said probe, and a plurality of ~~binding~~ bonding branches extending radially from the tip of said probe branch on the support side to be fixed by selective ~~binding~~ adsorption to said support.

11. (Currently Amended) The probe according to Claim 10, wherein said probe branch and said ~~binding~~ bonding branches have different structures, and said plurality of ~~binding~~ bonding branches branch radially from said tip of said probe branch, forming a [[tree]] tree-like structure with said probe branch as a trunk.

12. (Currently Amended) The probe according to ~~Claim 9~~ Claim 9, wherein said photosensitized molecule has a dendrimer structure.

13. (Original) The probe according to Claim 12, wherein said dendrimer structure is N-[3-{3,5-bis{3,5-bis[3,5-bis(4-mercaptobenzylthio)benzylthio]benzylthio}benzyloxy}-propionyl-4-nitro-1-naphthylamine.

14. (Previously presented) The probe according to Claim 9, wherein said photosensitized molecule is an N-acetyl-4-nitro-1-naphthylamine derivative.

15. (Previously presented) The probe according to Claim 9, wherein one molecule of said photosensitized molecule is fixed on said support.

16. (Original) The probe according to Claim 8, wherein said intermediate excitation medium is a photocatalyst and said external energy is said light.

17. (Original) The probe according to Claim 16, wherein said photocatalyst is titanium dioxide.

18. (Currently Amended) The probe according to Claim 1, wherein said ~~binding~~ bonding target is a second molecule having a ~~binding~~ bonding residue.

19. (Currently Amended) The probe according to Claim 1, wherein said ~~binding~~ bonding target is a material body other than a molecule.

20. (Previously presented) The probe according to Claim 1, wherein said intermediate excitation medium is fixed to said support by chemical bonds.

21. (Currently Amended) The probe according to Claim 1, wherein said ~~binding~~ bonding residue is an aliphatic residue having an unsaturated double bond or unsaturated triple bond.

22. (Currently Amended) The probe according to Claim 1, wherein said ~~binding~~ bonding residue is an aromatic residue having an unsaturated double bond or unsaturated triple bond.

23. (Original) The probe according to Claim 22, wherein, when said aromatic residue having said unsaturated double bond is a cinnamic acid group, said intermediate excitation medium is N-[3-{3,5-bis{3,5-bis[3,5-bis(4-mercaptobenzylthio)benzylthio]benzylthio}benzyloxy}-propionyl-4-nitro-1-naphthylamine.

24. (Currently amended) A probe comprising:
a support; and
a molecule which is fixed on said support and which interacts physically with a probe scanning target, wherein

said molecule comprises a probe branch that forms the end of said probe and a ~~plurality~~ plural number of ~~binding~~ bonding branches extending radially from the tip of said probe branch on the support side to be fixed by selective ~~binding~~ adsorption to said support.

25. (Currently amended) A probe comprising;
a support; and
a molecule which is fixed on said support and which interacts chemically with a probe scanning target, wherein

said molecule comprises a probe branch that forms the end of said probe and a ~~plurality~~ plural number of ~~binding~~ bonding branches extending radially from the tip of said probe branch on the support side to be fixed by selective adsorption ~~binding~~ to said support.

26. (Previously presented) The probe according to Claim 24, wherein said molecule is a probe molecule which has a dendrimer structure.

27. (Currently Amended) The probe according to Claim 24, wherein said probe branch and said ~~binding~~ bonding branches have different structures, and said plurality of ~~binding~~ bonding branches branch radially from said tip of said probe branch, forming a ~~[[tree]]~~ tree-like structure with said probe branch as a trunk.

28. (Original) The probe according to Claim 27, wherein said molecule has a dendrimer structure.

29. (Previously presented) The probe according to Claim 24, wherein one molecule of said molecule is fixed on said support.

30. (Previously presented) The probe according to Claim 24, wherein said probe scanning target is a molecule.

31. (Previously presented) The probe according to Claim 24, wherein said molecule is fixed to said support by chemical bonds.

32. (Currently amended) A probe comprising:
a support; and
an active molecule which is fixed so as to protrude from said support and which acts physically on a probe scanning target, wherein
said active molecule comprises a probe branch that forms the end of said probe and a ~~plurality~~ plural number of ~~binding~~ bonding branches extending radially from the tip of said probe branch on the support side to be fixed by selective adsorption ~~binding~~ to said support.

33. (Original) A probe comprising:
a support; and
an active molecule which is fixed so as to protrude from said support and which acts physically on a probe scanning target, wherein said active molecule has a dendrimer structure.

34. (Currently amended) The probe according to Claim 32, wherein said probe branch and said ~~binding~~ bonding branches have different structures, and said plurality of ~~binding~~ bonding branches branch radially from said tip of said probe branch, forming a ~~[[tree]]~~ tree-like structure with said probe branch as a trunk.

35. (Previously presented) The probe according to Claim 32, wherein said active molecule has a dendrimer structure.

36. (Previously presented) The probe according to Claim 32, wherein one

molecule of said active molecule is fixed on said support.

37. (Previously presented) The probe according to Claim 32, wherein said active molecule is fixed to said support by chemical bonds.